AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An automatic administration instrument for medical use for injecting a drug solution filled in a syringe, wherein said automatic administration instrument comprising:

a body for housing the syringe and an injection needle;

a first motor for driving the syringe within said body in a direction toward the tip of the injection needle such that the injection needle protrudes from said body;

a second motor for operating the syringe to administer the drug solution;

a <u>switch</u> switching means provided on the body of the administration instrument is operated said body, said switch being operated by pressing a part of the exterior of <u>said</u> the body against a body region of a patient to which the drug solution is to be administered,

wherein said switch activates said first motor such that the injection needle thereby operating a first driving means so that an injection needle housed in the body protrudes from the said body to perform needle insertion into said the body region, and thereafter, a second driving means for driving the syringe is operated activates said second motor to administer the drug solution.

2. (Currently Amended) An automatic administration instrument <u>as defined in claim 1</u>, <u>further comprising a detection means for detecting for medical use as defined in Claim 1</u> wherein, after a detection means detects that administration of the drug solution is completed and/or that <u>said</u> the administration instrument body is removed from the body region, <u>wherein</u> the first motor the driving means is operated so that the injection needle that protrudes from the

body to be inserted in the body region is housed in the administration instrument body is retracted into said body after said detection means detects that administration of the drug solution is completed and/or that said body is removed from the body region.

- 3. (Currently Amended) An automatic administration instrument as defined in claim 1, for medical use as defined in Claim 1 wherein a speed of inserting the injection needle or a speed of pulling out the injection needle is variable.
- 4. (Currently Amended) An automatic administration instrument as defined in claim 1, for medical use as defined in Claim 1-wherein a speed at which the drug solution is administered by said the second motor driving means is variable.
- 5. (Currently Amended) An automatic administration instrument <u>as defined in claim 1,</u> further comprising:

an inner case that is slidably provided in an outer case of said body, said inner case being configured to attach to the injection needle and the syringe,

wherein said first motor drives the syringe by sliding said inner case in said outer case, and

wherein said first motor is operated by said switch to automatically insert the injection needle into the body region of the patient by sliding said inner case so that the injection needle protrudes from said outer case.

for medical use for injecting a drug solution, said administration instrument being provided with an inner case that is slidably provided in an outer case of the body, an injection

U.S. Serial No. 10/516,395

Attorney Docket No. 2004_1847A

July 6, 2010

needle that is attached to the inner case, a syringe that is replaceably attached to the inner case

and is filled with a drug solution, a first driving means for sliding the inner case in the outer case,

a second driving means that is coupled to the syringe to administer the drug solution filled in the

syringe, and a switch means for driving the first and second driving means;

wherein, when performing insertion of the injection needle, the first driving means is

operated by the switch means to slide the inner case so that the injection needle protrudes from

the outer case, thereby automatically inserting the needle into a body region of a patient to which

the drug solution is to be administered.

6. (Currently Amended) An automatic administration instrument as defined in claim 5,

wherein said inner case slides such that the injection needle protruding from said outer case is

retracted into said outer case to automatically remove the injection needle. for medical use as

defined in Claim 5 wherein, when performing removal of the injection needle, the inner case is

slid so that the injection needle protruding from the outer case is housed in the outer case,

thereby automatically removing the injection needle.

7. (Currently Amended) An automatic administration instrument as defined in claim 5,

wherein said switch is for medical use as defined in Claim 5 further including a detection switch

for detecting as to whether the administration instrument whether said body contacts the body

region to which the drug solution is to be administered.

8. (Currently Amended) An automatic administration instrument as defined in claim 7, for

medical use as defined in Claim 7-wherein insertion of the injection needle is enabled when

U.S. Serial No. 10/516,395

Attorney Docket No. 2004_1847A

July 6, 2010

thesaid detection switch detects that thesaid administration instrument contacts the body region

to which the drug solution is to be administered.

9. (Currently Amended) An automatic administration instrument as defined in claim 8, for

medical use as defined in Claim 8-wherein administration of the drug solution is stopped when

thesaid detection switch detects during administration of the drug solution that thesaid

administration instrument does not contact the body region to which the drug solution is to be

administered, administered, during administration of the drug solution.

10. (Currently Amended) An automatic administration instrument as defined in claim 8,

wherein the injection needle is retracted into said body when said for medical use as defined in

Claim 8 wherein the operation of housing the injection needle into the body is carried out when

the detection switch detects during insertion of the injection needle that the administration

instrument does not contact the body region to which the drug solution is to be administered.

administered, during insertion of the injection needle.

11-14. (Cancelled)

15. (Currently Amended) An automatic administration instrument for medical use as defined

<u>in claim 1,</u> wherein injection of a drug solution is not carried out when an injection needle is not

attached to thesaid body of thesaid administration instrument.

U.S. Serial No. 10/516,395 Attorney Docket No. 2004 1847A

July 6, 2010

16. (Currently Amended) An automatic administration instrument as defined in claim 2, for

medical use as defined in Claim 2 wherein a speed of inserting the injection needle or a speed of

pulling out the injection needle is variable.

17. (Currently Amended) An automatic administration instrument as defined in claim 2, -for

medical use as defined in Claim 2 wherein a speed at which the drug solution is administered by

said second motor the second driving means is variable.

18-20. (Cancelled)

21. (New) An automatic administration instrument as defined in claim 1, further comprising:

a microprocessor which outputs instructions to said first motor and said second motor.

22. (New) An automatic administration instrument as defined in claim 1, further comprising:

a microprocessor which outputs instructions to said first motor and said second motor,

and

wherein said first motor rotates in a first direction to drive the syringe such that the

injection needle protrudes from said body and rotates in a second direction opposite to the first

direction to retract the injection needle into said body.

23. (New) An automatic administration instrument as defined in claim 1, further comprising:

a microprocessor which outputs instructions to said first motor and said second motor,

U.S. Serial No. 10/516,395 Attorney Docket No. 2004_1847A

July 6, 2010

wherein said first motor rotates in a first direction to drive the syringe such that the

injection needle protrudes from said body and rotates in a second direction opposite to the first

direction to retract the injection needle into said body, and

wherein a speed of inserting the injection needle or a speed of pulling out the injection

needle is variable.